

REMARKS

This is in response to the Office Action mailed July 8, 2002.

The above amendment to the specification comprises merely the inclusion of additional information related to Applicants priority claim. No new matter has been added.

Claims 1-12 and 14-21 stand rejected, and claim 13 stands as being objected to as being dependent upon a rejected base claim, but regarded as containing allowable subject matter.

Claims 1-21 remain for examination.

Telephone interview with the Examiner

The Applicants thank Examiner Cheryl A. Juska for the courtesy of a telephone interview conducted on December 19, 2002 with Michael J. Pomianek and William F. Laird, who is director of Advanced Engineering at Microfibers, which is the assignee of the present patent application. During the interview, the outstanding rejections of independent claim 21 under 35 U.S.C. §112, ¶2 as including indefinite language, and the rejection of claims 1, 2, 5-12, and 14-20 under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 3,922,404 to Priester in view of European Patent Application 0 581 614 A1 to McMulloch (sic, McCulloch) were discussed.

Regarding the rejection under 35 U.S.C. §112, ¶2, Mr. Pomianek asserted that the objected to language in claim 21; namely, "under condition selected to minimize creasing of the fabric" is clear and understandable to those skilled in the art in view of specific disclosure in Applicants' specification directed to selecting conditions to minimize creasing and to determining when fabric has been treated under such conditions. Mr. Pomianek pointed out that the Applicants did not consider the recitation of specific, exemplary conditions in the claims, as suggested in the Office Action, to be necessary to render the current claim language understandable to one of ordinary skill in the art. Mr. Pomianek suggested that it appeared that the Patent Office's true basis for objection was that the objected to language of claim 21 renders the claim "too broad," but that such an objection is not a sufficient basis on which to base a rejection under 35 U.S.C. §112, ¶2, so long as the meaning and scope of the claim is able to be understood by those skilled in the art. The Examiner agreed to reconsider the rejection of the

claim under 35 U.S.C. §112, ¶2 in response to written remarks traversing the rejection. Such remarks are presented below.

Regarding the rejection of the remaining claims under 35 U.S.C. §103(a) as being unpatentable over Priester in view of McMulloch (sic), Mr. Pomianek pointed out specific language in each of the rejected independent claims, which distinguishes the washing/fiber reorientation steps recited in the claims of the present application over the fabric crushing method taught in the Priester reference. Mr. Pomianek noted that similar arguments were presented in Applicants' "Amendment A" (Paper no. 6) in response to the previous rejection of the claims under 35 U.S.C. §103(a) as obvious over Priester in view of U.S. Patent No. 4,895,748 to Squires. The Examiner indicated that Applicants' arguments along these lines may not have been independently considered, i.e. separate from Applicants' arguments rebutting the motivation to combine Priester and Squires, as a separate basis for supporting patentability of the rejected claims, since the Examiner understood such arguments to be directed to only the motivation for combining Priester and Squires. Accordingly, the Examiner agreed to reconsider the current rejection under 35 U.S.C. §103(a) in response to Applicants written arguments pointing to specific language in the rejected claims distinguishing the washing/fiber reorientation steps of the claimed methods from the flock fabric texturing method disclosed by Priester. Remarks directed to these differences are presented below.

Rejection of claims 3 and 4 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of prior U.S. Patent No. 6,247,215 B1.

Reconsideration is respectfully requested of the rejection of claims 3 and 4 under the judicially created doctrine of obviousness-type double patenting, as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,247,215 B1, in view of a Terminal Disclaimer accompanying this response. On the basis of the Terminal Disclaimer, it is believed that the rejection on this ground has been obviated, and it is respectfully requested that the rejection be withdrawn.

Rejection of claim 21 under 35 U.S.C. §112, ¶2.

The Patent Office rejects claim 21 under 35 U.S.C. §112, ¶2 contending that the recitation “under conditions selected to minimize creasing of the fabric” in the claim renders the scope and meaning of the claim unclear. Specifically, the Office Action states that the specification only specifically teaches wash temperature and the use of a desizing agent to minimize the likely hood of crease formation and that it is unclear whether Applicants intend to limit the “conditions” recited in claim 21 to the wash temperature alone or in combination with the use of a desizing agent (or in combination with other conditions). On this basis, the Patent Office asserts that the scope of Claim 21 is indefinite. Further, the Office Action states that although the claims are interpreted in light of the specification, limitations from the specification (presumably wash temperature and/or the use of a desizing agent) will not be read into the claims for the purpose of examination.

Applicants respectfully disagree that the above-quoted language of claim 21 renders the claim unclear or indefinite. At the offset, Applicants note that all that is required under 35 U.S.C. §112, ¶2 is that those skilled in the art understand what is being claimed, when the claims are read in light of the specification. Orthokinetics v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1 USPQ 2d 1081 (Fed. Cir. 1986). In the present case, the plain meaning of the above-recited, objected to claim language is believed to be perfectly understandable to those of ordinary skill in the art.

Claim 21 recites processing greige goods “under condition selected to minimize creasing of the fabric.” The above-quoted language clearly indicates that any conditions selected to result in minimization of creasing of the fabric during processing is intended to and does fall within the scope of the claim. This recitation, when read in light of Applicants’ specification and figures, would be clearly understood by those of ordinary skill in the art as covering conditions that do not result in the production of long, deep lines and creases substantially larger than the hairlines disclosed as being desirable in the specification. Applicant’s specification clearly teaches, both in text and figures, the difference between desirable hairlines and generally undesirable creases (see, e.g., Fig. 4; page 3, line 24; page 4, line 23-25; and page 4, line 30-page 5, line 12).

Applicants note that the fact that some routine testing and experimentation may be required to determine the precise scope of a claim limitation does not render such limitation indefinite. Exxon Research and Engineering Co. v. U.S., 265 F.3d 1371 (Fed. Cir. 2001). Regarding the present limitation, as would be understood by those of ordinary skill in the art reading Applicants' specification, processing temperature and the use of a desizing agent are merely exemplary of the types of conditions that can be controlled, according to the invention, to minimize creasing. For example, in view of the teaching in Applicants' specification, many processing conditions would become apparent to those of ordinary skill in the art as being able to facilitate or contribute to the minimization of creasing. A number of such conditions, in addition to processing temperature and the use of a desizing agent, are set forth in Applicants' specification; such conditions can include, for example, the type of processing machine and composition of washing liquor used during fiber reorientation (page 6, lines 3-13), the tacking of the fabric into elongated tubes during the washing step and extraction step (page 5, line 26-page 6, lines 2, 26-28), the drying of the fabric in open-width form instead of in rope form (page 6, line 29-page 7, line 8), etc. Whether or not a specific set of selected conditions result in the minimization of creasing of the fabric during processing, for a particular chosen fabric, set up and processing conditions, can be readily determined by those of ordinary skill in the art by no more than routine testing of the resulting fabric for the presence of creases, as described in Applicant's specification. The fact that some routine testing may be required to determine the precise scope of the claim limitation does not render the limitation indefinite. Id.

It appears that the Patent Office's unstated basis for objection to the above-recited claim language may be it believes that the claim reads broader than certain specific, exemplary conditions in Applicants' specification (i.e. wash temperature and the use of a desizing agent) highlighted in the Office Action as providing for minimization of creasing. However, claim breadth is not an appropriate basis for a rejection under 35 U.S.C. §112, ¶2, so long as those of ordinary skill in the art would understand the scope of the claim in view of the specification. MPEP §2173.04; In re Miller, 441 F.2d 689 (CCPA 1971). If the scope of the subject matter embraced by the claims is clear, as in the present case as explained in the paragraph above, and if the Applicants have not otherwise indicated that they intend the invention to be of a scope

different from that defined in the claims, then the claims comply with 35 U.S.C. §112, ¶2.

Applicants also point out that the law does not require that claims be limited by the specific conditions or examples mentioned in Applicants' specification, so long as the claims are properly enabled by the specification. Claims can be, and typically are, broad enough to cover at least some embodiments not specifically exemplified in the specification. In the present case, Applicants' recitation of "conditions selected to minimize creasing of the fabric" is intended to cover, but not be strictly limited to, the specific examples of wash temperature and the use of a desizing agent highlighted in the Office Action and mentioned in Applicant's specification. Indeed, "[t]o demand that the first to disclose shall limit his claims to what he has found will work or to materials which meet the guidelines specified for 'preferred' materials in a process... would not serve the constitutional purpose of promoting progress in the useful arts." In re Goff 542 F.2d 564, 567 (CCPA 1976). Accordingly, Applicants believe that claim 21 is clear and understandable to those of ordinary skill in the art and, therefore, is in full compliance with 35 U.S.C. §112, ¶2. Reconsideration and withdrawal of the rejection of claim 21 is respectfully requested.

Rejection of claims 1, 2, 5-12 and 14-20 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,922,404 to Priester, Jr. (hereinafter "Priester"), in view of European Patent Application No. 0 581 514 A1 to McMulloch (sic) (hereinafter "McMulloch")

Reconsideration is respectfully requested of the rejection of claims 1, 2, 5-12 and 14-20 under 35 U.S.C. §103(a) as being unpatentable over Priester in view of McMulloch. As discussed with the Examiner during the telephone interview, the present rejection under 35 U.S.C. §103(a), as with the previous rejection over Priester in view of Squires, is premised upon Priester teaching each of the method steps in the rejected independent claims (claims 1, 14, and 20), except for the step of printing. The remarks below are directed to showing that Priester does not, in fact, teach or suggest Applicants' each of the steps of Applicants' claimed methods, except for printing.

With regard to independent claim 1, Priester does not disclose or suggest washing greige goods under conditions sufficient to enable a liquid to which the greige goods are exposed to

reorient fibers forming a flocked surface of the greige goods, nor does he teach reorienting the fibers with the liquid from an essentially uniform parallel orientation into random groups of fibers having angular or directional orientations that vary from one group to another, as recited in independent claim 1. Specifically, as correctly pointed out by the Patent Office, the Priester method for forming a randomly crushed pile fabric comprises a step of dying or wetting the fabric in a Beck or other dying machine, followed by the steps of removing the wetted fabric from the machine and balling up and crushing the fabric in a hydraulic extraction apparatus **28** (see Fig. 1 of Priester) in order to crush and reorient the pile.

Priester continuously emphasizes that it is the step of compressing and squeezing of the crumpled ball-shaped mass of fabric in the extractor that results in the random crushing of the pile (see e.g., column 1, lines 57-64; column 1, line 64-column 2, line 2; column 3, lines 2-7, "In the hydraulic extractor **28**, the ball-like mass is subjected to a high pressure squeezing action to express liquid therefrom and to cause the fibrous particles to be randomly and permanently bent and crushed," column 5, lines 2-7, "The dyed (or at least fully wetted) fabric is then formed into a crumpled mass and placed into hydraulic extractor apparatus **28** where the mass can be squeezed to express liquid therefrom and to thereby randomly and permanently crush the pile," column 5, lines 23-27; column 5, lines 31-35, "The important consideration is to provide sufficient pressure to achieve random and permanent re-orientation (sic) of at least a substantial portion of the pile fibers to achieve a permanent crushed effect;" column 5, lines 37-39, "...the fabric is subjected to the squeezing operation shortly after removal from the dye beck...;" column 5, lines 60-67; and claim 1, subparagraph (c); (emphasis added in all quotations)).

Accordingly, it is the crushing and squeezing step of the Priester method, which occurs in the hydraulic extractor and not the dying/wetting of the fabric in the dye beck **26** that is described as producing the crushed pile effect characteristic of the fabric treated by the Priester method. Nowhere does Priester disclose or suggest that the fabrics are exposed to washing conditions, i.e. when in a dying/wetting apparatus (Beck **26**), sufficient to enable a liquid to which the fabrics are exposed to reorient fibers forming a flocked surface, nor that such liquid reorients the fibers to form random groups of fibers having angular and directional orientations that vary from one group to another, as recited in the Applicants' claim 1. It is only after

removal from the dye beck, and thus after any step that can be analogized to a “washing” step, that Priester discloses that the pile is randomly reoriented, namely in the hydraulic crushing apparatus 28 (see e.g., column 5, lines 2-7 and 36-38).

Regarding independent claim 14, Priester does not disclose or suggest any method including steps of washing greige goods in a wash chamber under conditions sufficient to reorient fibers forming a flocked surface of the greige goods, reorienting the fibers to form random groups of fibers having angular and directional orientations that vary from one group to another, and thereafter removing the washed greige goods having the random groups of fibers from the wash chamber, as recited in claim 14. As discussed in detail above, the Priester method, by contrast, teaches random reorientation of fibers forming a pile surface during a step of balling-up, crumpling, and squeezing of a fabric in a hydraulic extractor subsequent to wetting and/or dyeing of the fabric in a dye beck. Nowhere is it disclosed or suggested in Priester that the greige goods undergo washing in a wash chamber under conditions sufficient to reorient fibers forming a flocked surface of the greige goods, before removal of the washed greige goods from the wash chamber, such that reorientation of the fibers forms random groups of fibers having angular and directional orientations that vary from one group to another, as recited in independent claim 14.

Regarding independent claim 20, nowhere does Priester explicitly or inherently teach or suggest steps of forming greige goods into an elongated tubular shape and washing the tubular greige goods, as recited in independent claim 20. While it is conventional to form certain types of fabrics into fabric “ropes” prior to dyeing the fabrics in Beck or jet-dyeing machines, as pointed out by the Patent Office in the Office Action mailed November 7, 2001 (Paper No. 8) (although not, conventionally, pile fabrics, such as those disclosed by Priester), this fact is not material to the present rejection. As correctly pointed out by the Patent Office in the Paper No. 8 Office Action, fabric “ropes” are formed by basting fabric ends together to form a continuous loop. However, the formation of such a continuous loop by basting fabric ends together does not comprise forming greige goods into an elongated tubular shape, as recited in independent claim 20.

The formation of “elongated tubular shape[d]” fabrics as recited in claim 20 is described on page 5 of the Applicants’ specification as meaning forming the fabric/griege goods into tubes by tacking or basting stitching along the length of the fabric. In other words, the elongated tubular shapes formed according to the method of claim 20 comprise, as described in the above-mentioned section of Applicants’ specification, tubes of fabric formed by tacking the selvages or edges of the fabrics together, and not the fabric ends as occurs when forming a conventional fabric “rope.” The elongated tubular shape resulting from tacking the selvages/edges of the fabric together along the length of the fabric would typically be characterized by a length substantially exceeding the diameter of the tube (which diameter is proportional to the width of the fabric). In stark contrast, a loop “tube” formed by basting fabric ends together, as occurs in the formation of fabric “ropes,” would be characterized by a squat tube shape having a relatively large diameter (which is proportional to the overall length of the fabric used for forming the “rope”) and a relatively small “length” (i.e. the height of the cylinder comprising the loop, which is essentially equal to the width of the fabric). Accordingly, the formation of fabric “ropes,” as is conventional in the art, does not comprise forming greige goods into an elongated tubular shape, as recited in claim 20.

For the reasons stated above, it is believed that the rejections of independent claims 1, 14 and 20 as being unpatentable over Priester in view of McMulloch have been overcome, and reconsideration is respectfully requested. Claims 2 and 5-12 each depend from independent claim 1, and claims 15-19 each depend from independent claim 14. These claims are believed to patentably distinguish the combination of Priester and McMulloch for at least the reasons stated above with regard to the independent claims from which they depend. Therefore, reconsideration of the rejection of these claims on the present grounds is also respectfully requested.

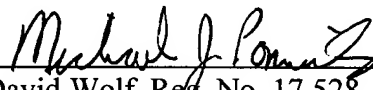
CONCLUSION

On the basis of the above remarks and amendments, it is believed that claims 1-21 are in condition for allowance. A notice to that effect is respectfully requested.

If, for any reason, the Examiner believes that a telephone conversation with Applicants' representative would expedite prosecution, the Examiner is invited to contact the undersigned at 617-720-3500.

Please charge any fee or fee deficiency occasioned by this amendment to Deposit Account No. 23/2825.

Respectfully Submitted,



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APPENDIX: MARKED-UP VERSION OF THE SPECIFICATION

Please replace the paragraph beginning on page 1, line 2 (just below the "Related Applications" heading) with the following.

This application is a continuation of U.S. patent application serial no. 09/089,784, filed on June 3, 1998, entitled IMPROVED PRINTED FLOCKED PILE FABRIC AND METHOD FOR MAKING SAME, and now [allowed] U.S. Patent No. 6,247,215, issued June 19, 2001, which is a divisional of U.S. patent application serial no. 08/626,396, entitled IMPROVED PRINTED FLOCKED PILE FABRIC AND METHOD FOR MAKING SAME, now abandoned.